

# watershedfocus

Fall 2001

New Jersey Department of Environmental Protection

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## CLEANER WATER RESULTS IN THE UPGRADE OF 7,754 ACRES OF SHELLFISH WATERS 5,425 Acres to be Upgraded in Raritan Bay

State Environmental Protection Commissioner Bob Shinn announced in October that 7,754 additional acres of state waters soon will be opened for shellfish harvesting, marking the 14th consecutive year that continuing improvement in water quality has allowed expansion of areas where shellfish may be safely taken.

"The continued expansion of our shellfish harvesting waters is a clear and reliable yardstick of our progress in improving water quality. These openings are the result of combined efforts to upgrade wastewater treatment plant operations and reduce nonpoint source pollution," Shinn said during a ceremony at the Leonardo State Marina on the Raritan Bay.

The proposed reclassification will bring the total acreage available for shellfishing to 599,505, or 89 percent of the state's coastal waters, Shinn noted.

The areas to be upgraded are: 5,425 acres from prohibited to special restricted in Raritan Bay including 4,441 acres in the Flynn's Knoll section off of Sandy Hook and 984 acres in the bay near Union Beach. Special restricted means permits for depuration are required. In addition, 1,878 acres upgraded from

(SHELLFISH continued on page 2)



*For the 14th consecutive year, New Jersey has increased the number of acres of approved shellfish areas. New Jersey harvests over 75 million pounds of shellfish each year, more than any other state.*

## watershedfocus

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## SHELLFISH

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prohibited to approved in the Atlantic Ocean off of Mantoloking (Ocean County); 360 acres from seasonal to approved in Risley Channel off of Margate (Atlantic County), and 91 acres upgraded from special restricted to seasonal in Lakes Bay near Margate. The seasonal classification allows harvesting yearly from November through April.

"New Jersey is the only state in the 24-state Interstate Shellfish Sanitation Conference that has consistently had more waters upgraded than downgraded each year for the past 14 years," Shinn said. "The continued upgrade is particularly remarkable considering that population growth has been steady in the state's coastal counties during this time."

New Jersey harvests the most shellfish of any state, more than 75 million pounds each year.

Each year, DEP's Bureau of Marine Water Monitoring collects and analyzes over 19,000 water samples. Staff also regularly perform field surveys of the coastal shoreline to monitor any pollution sources.

The Interstate Environmental Commission and U.S. Environmental Protection Agency's Region 2 Office, under New Jersey's Performance Partnership Agreement, also assisted in the collection and analysis of water and shellfish tissue for this upgrade.

Other ongoing clean water initiatives include the watershed management program, which works with local organizations, to establish regional plans to control nonpoint source pollution, such as runoff from development and agriculture, by. DEP also is working with municipalities and the Environmental Infrastructure Trust to replace combined sewers in older towns and reduce stormwater overflows.

Fifty-five acres east of Mystic Island are being downgraded from Approved to Seasonal in two small waterways leading to Great Bay due to a requirement for buffers around marinas.

Adjacent to the 1,878 acres in the ocean off of Mantoloking that are being upgraded to approved, 20 acres are being closed to better define and manage the closure zone around the Northern Ocean County Municipal Utilities Authority plant using GPS coordinates. The larger harvesting area is due to the treatment plant's improved operating efficiency and reliability.

DEP is accepting public comment on the proposed reclassification, which was published in the October 15, 2001 NJ Register. The public comment period closes Nov. 14 and the proposal is scheduled to take effect Jan. 7, 2002.

Maps showing the reclassified areas may be viewed on the Bureau of Marine Monitoring's web page at [www.state.nj.us/dep/watershedmgt/bmw](http://www.state.nj.us/dep/watershedmgt/bmw).



### New Jersey's 5 Water Regions and 20 Watershed Management Areas

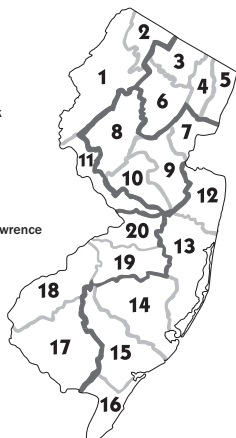
**Northwest**  
(609) 633-3812  
1. Upper Delaware  
2. Walkill  
11. Central Delaware

**Northeast**  
(609) 633-1179  
3. Pompton, Pequannock,  
Wanaque, Ramapo  
4. Lower Passaic, Saddle  
5. Hackensack, Hudson, Pascack  
6. Upper & Middle Passaic,  
Whippany, Rockaway

**Raritan**  
(609) 633-7020  
7. Arthur Kill  
8. North & South Branch Raritan  
9. Lower Raritan, South River, Lawrence  
10. Millstone

**Atlantic Coastal**  
(609) 984-6888  
12. Monmouth  
13. Barnegat Bay  
14. Mullica  
15. Great Egg Harbor  
16. Cape May

**Lower Delaware**  
(609) 633-1441  
17. Maurice, Salem, Cohansey  
18. Lower Delaware  
19. Rancocas  
20. Assiscunk, Crosswicks, Doctors



## PARTNERSHIP TO RESTORE WETLANDS ALONG RAHWAY RIVER

Department of Environmental Protection (DEP) Commissioner Bob Shinn awarded \$147,500 for restorations along the Rahway River in the City of Rahway's Union and Allen street area, once a chronically flooded neighborhood.

"This grant is the next step in a series of partnerships among all levels of government and the private sector that will turn a problem flood area into a beneficial and attractive open space with a park-like setting that will improve the river's water quality, as well as the local quality of life," Shinn said. "The City of Rahway, which initiated this proactive project, is to be commended, along with the many partners, for this endeavor which will serve as a model on how to restore urban, flood-prone properties to benefit a community."

Shinn presented a \$45,000 advance check to the American Littoral Society-NY/NJ Baykeeper, the lead agency for the two-year Rahway project that will restore a five-acre wetlands area. The restoration will improve water quality at the head of tide in the North Branch of the Rahway River, near the confluence with Robinson's Branch.

Andrew J. Willner, director of NY/NJ Baykeeper said, "This kind of public private partnership involving local communities may be the only way we can restore urban stream corridors and other wildlife resources. When the public participates in wildlife habitat and open space restoration they become invested in their river, stream or bay."

By restoring the wetlands, the project will help filter pollutants from storm water runoff and will provide for storm water retention to minimize flooding. It also will provide for public access to the river for recreation and watershed education, and will provide wildlife habitat. The area is planned to be added to the Union County Park System's Rahway River Parkway as a gift to the Open Space Trust.

"By restoring wetlands along the Rahway we increase wildlife resources and community access to a new river park," said Dery Bennett, executive director of the

American Littoral Society. The project includes regrading, installing piping and riprap to prevent erosion, and planting native species vegetation to optimize pollutant removal. Volunteers will be recruited to plant the vegetation and conduct monitoring. The vegetation will be maintained to ensure long-term survival.

The funding is administered by DEP's Division of Watershed Management as part of a nonpoint source pollution grant program under the federal Clean Water Act. The Rahway River is part of the Arthur Kill Watershed Management Area 7 in the Raritan Watershed Region. Union County last year signed a contract with DEP and received funding to lead the development of a comprehensive management plan for the Rahway River, Elizabeth River and Arthur Kill watershed (Area 7) which covers 250 square miles in parts of Union, Hudson, Essex and Middlesex counties. Other partners in the Rahway project include: the Rahway River Association, Union County Division of Engineering and Bureau of Parks Operations, Omni Environmental Corporation, NY/NJ Harbor Estuary Program, DEP's Green Acres Program, the Federal Emergency Management Agency (FEMA), NJ State Police, and the National Oceanic and Atmospheric Administration. The total cost for the construction of the entire project is estimated at \$500,000. The partners have requested funding from several sources including Union County, the NJ Wetlands Mitigation Council and the Merck Foundation. With funding assistance from the Wetlands Mitigation Council, the city completed the project design and obtained the necessary permits.

The City of Rahway had secured \$750,000 in DEP Green Acres funding and funds from FEMA through the NJ State Police, Emergency Management, to purchase and demolish several homes located along this section of the river that had been frequently damaged by flooding. The city then prepared a concept plan and preliminary design for the restoration. The Rahway River Association will assist with construction and long-term monitoring of this project.



# TEN TOWNS PROTECT GREAT SWAMP THROUGH ENVIRONMENTAL ORDINANCES

## Ten Towns Model Environmental Ordinances

Since adoption of the Great Swamp Watershed Management Plan in 1997, the Ten Towns Great Swamp Watershed Management Committee has established a large number of programs or activities to implement the plan. This includes establishment of a long term water quality monitoring program, a macroinvertebrate monitoring program, educational materials and construction of best management practices (BMP's) to improve water quality.

One of the most important of these activities is development of model environmental ordinances which were prepared with the assistance of a 319(h) grant received from the Department of Environmental Protection.

The model ordinances reflect the Committee's understanding that perhaps the single most important action to protect water quality is through local ordinances which stress protection of water resources as part of regulations for development and redevelopment in each community.

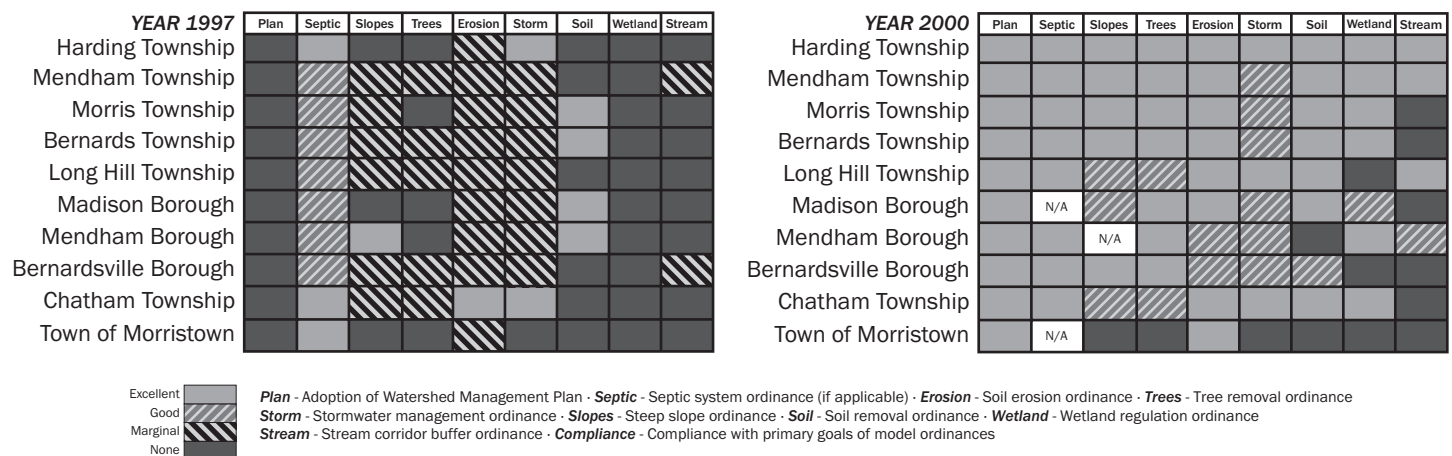
The Committee also recognized that simple preparation of model ordinances was not sufficient if these ordinances were not adopted and enforced by municipalities in the watershed.

The accompanying chart is the Committee's "scorecard" to show actions to adopt or upgrade environmental ordinances from 1997 until January 2001. The chart reflects 59 different actions taken by municipal governing bodies during the past three years to upgrade environmental ordinances to significantly improve or fully comply with the provisions of the model ordinances.

Since January 2001 municipal governing bodies have continued to review and act to upgrade their environmental ordinances. The Ten Towns Committee is in active communication with each Great Swamp watershed municipality to encourage further adoption of ordinances in the remaining areas that do not comply with the model ordinances. It is anticipated that eight or ten additional ordinances will be adopted during 2001 resulting in further "greening" of the ordinance compliance chart.

The Ten Towns color-coded "scorecard" dramatically illustrates the effectiveness of local government actions to protect water quality in the Great Swamp watershed. The Committee will continue its watershed management program, not only with respect to model environmental ordinances, but with a full range of activities to meet the goals of the Great Swamp watershed management plan.

## Compliance with Model Ordinances



## ***A Little History***

The Ten Towns Great Swamp Watershed Management Committee was established in June 1995 in response to long-standing concern about water quality in the Great Swamp watershed, particularly the Great Swamp Wildlife Refuge.

Despite long concern about the Great Swamp, efforts to assure protection of water quality in the watershed had limited effectiveness. As a result of this concern, legislation was introduced in October 1994 to establish an independent commission to oversee development and regulate environmental protection in the Great Swamp watershed. Morris 2000, a nonpartisan County-wide volunteer organization dealing with regional issues recognized that this “top down” approach would be opposed by local municipalities who have authority for land use decisions under the New Jersey land use law.

Recognizing the likely failure or, at best, limited success of the proposed independent commission, Morris 2000 took the initiative to contact legislators, interested citizen groups and all municipalities in the Great Swamp watershed to seek an alternative course of action. The result was the establishment of the Ten Towns Committee through an inter-municipal agreement that was adopted unanimously by the governing bodies of each community.

Initially, the Ten Towns Committee was given a two-year life and a mandate to develop a watershed management plan to demonstrate its effectiveness in meeting the goal to protect water resources. The Committee, which is composed of three representatives from each municipality completed its task within the two-year timeframe. The plan was presented to each municipal governing body and was unanimously adopted by all municipalities in the watershed by September 1997.

The Committee completed its sixth year of operation in June 2001 and has developed a comprehensive program of activities to implement its watershed management plan.

The Committee was the first of its kind in New Jersey and has become a model for effective organization to successfully deal with regional concerns based on an approach that emphasizes:

- ***Inclusion and full participation of all interested parties.***
- ***A “grass roots” organization of municipalities most affected by and responsible for environmental regulations.***
- ***A partnership established at all four levels of government (municipal, county, state and federal) and with various private organizations.***
- ***A systematic approach for setting goals and establishing priorities.***
- ***An action oriented work plan to coordinate individual activities in the most cost effective manner possible.***

The Ten Towns Committee and other similar organizations formed in the past three or four years reflect the recognition of the Department of Environmental Protection that the most effective way to achieve successful watershed management is through collaborative efforts beginning at the local level.

For more information, please contact J. Peter Braun, Ten Towns Great Swamp Watershed Management Committee at (973) 984-2000.



# **NJ WATERSHED AMBASSADORS READY TO SERVE THEIR WATERSHED COMMUNITIES**

Are you interested in learning about volunteer monitoring techniques? Are you looking for an exciting environmental presentation for your classroom or community group? Do you want to know more about your watershed? The New Jersey Watershed Ambassadors Program can help you.

The New Jersey Watershed Ambassadors program is a community-oriented AmeriCorps program hosted by the NJDEP Division of Watershed Management. Through this program, an AmeriCorps member is placed in watershed management areas across the state, ready to serve their watershed community.

Watershed Ambassadors monitor the rivers of New Jersey through River Assessment Teams (RATS) and Biological Assessment Teams (BATS) volunteer monitoring programs. The members also train community volunteers in these two volunteer monitoring techniques. Members are available to make presentations to community organizations and schools, which provide information about water and watershed issues in New Jersey.

The NJDEP Division of Watershed Management began hosting this AmeriCorps program in September 2000. AmeriCorps is a national service initiative that was started in 1993 and is the domestic Peace Corps. After two weeks of intensive training in volunteer monitoring techniques, watershed management issues and presentation skills, AmeriCorps members were placed with a host agency in their home watershed management area.

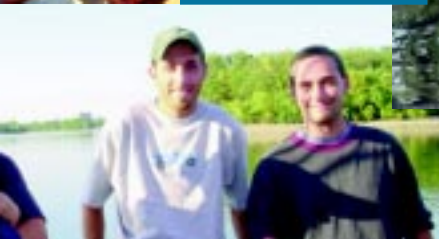
To schedule a presentation, please contact the New Jersey Watershed Ambassador for your area. For more information about the program, please contact Fran Varacalli, Program Manager at 609-633-0533 or [fvaracal@dep.state.nj.us](mailto:fvaracal@dep.state.nj.us)



# 20

# New Jersey Watershed Ambassadors Program

01



**WMA 1 - Upper Delaware**  
Michelle Riggiero - (908) 735-0733

**WMA 3 - Pompton, Pequannock,  
Wanaque & Ramapo**  
Jen Bernstock - (973) 616-1006

**WMA 4 - Lower Passaic & Saddle River**  
Jon Carlson - (973) 299-7592

**WMA 5 - Hackensack, Hudson & Pascack**  
Marianne Butler - (201) 692-8440

**WMA 6 - Upper & Mid Passaic,  
Whippany & Rockaway**  
Michelle Burke - (973) 966-1900

**WMA 7 - Arthur Kill**  
Michael Aita - (908) 789-3673

**WMA 8 - North & South Branch Raritan**  
Annie Pizza - (908) 234-1852

**WMA 9 - Lower Raritan,  
South River & Lawrence**  
Beth Sawickie - (732) 745-3016

**WMA 10 - Millstone**  
Brian Rappaport - (609) 737-3735

**WMA 11 - Central Delaware Tributaries**  
Patrick Sachs - (609) 452-1717

**WMA 12 - Monmouth**  
Jim Burkitt - (732) 431-7460

**WMA 13 - Barnegat Bay**  
Steve Janasie - (609) 294-3111

**WMA 15 - Great Egg Harbor**  
Amy Elder - (609) 646-5500

**WMA 16 - Cape May**  
Bjorn Christiano - (609) 368-1211

**WMA 18 - Lower Delaware**  
Christopher Trainor - (856) 614-3655

**WMA 19 - Rancocas Creek**  
Andy Duddleston - (856) 983-5665

**WMA 20 - Assiscunk,  
Crosswicks & Doctors**  
Pat Weiss - (609) 586-9603





## ***Division of Watershed Management Award Nomination Forms Available***

Nomination forms for the Division of Watershed Management Awards Program are now available. This recognition program is part of the Division's effort to raise awareness about watershed management success stories in various sectors of the watershed community. The emphasis is on innovation, responsibility and success in reaching achievements in this field.

The five awards categories are ***Business/Industry, Educational/Learning Institution, Watershed Organization, Municipality*** and ***Regional/County Efforts***.

Last years recipients were the Merck & Company's Whitehouse Station Facility (Business/Industry), Delaware Bay Schooner Project (Educational/Learning Institution), Stony Brook Millstone Watershed Association (Watershed Organization), and Stafford Township (Municipality).

For more information, please contact Eileen Thornton at 609-633-0634 or [ethornto@dep.state.nj.us](mailto:ethornto@dep.state.nj.us)

## ***DEP WATERSHED MANAGER AWARDED BY HACKENSACK RIVERKEEPER***

Kerry Kirk Pflugh, a 14-year veteran with the state Department of Environmental Protection (DEP), received the Hackensack Riverkeeper's "Friend of the Hackensack River" award for her many contributions in watershed education, particularly her urban initiatives.

Pflugh, of Washington Township, Warren County, is bureau chief of the Division of Watershed Management's Raritan Region. She also coordinates the New York/New Jersey Harbor Estuary Program and the Division's outreach and education efforts.

Captain Bill Sheehan of the Hackensack Riverkeeper stated that Pflugh is one of the best people he has encountered to work with on an agency level. "It's been a pleasure and honor over the years to participate in the various programs and initiatives we have co-developed," he said.

"Kerry exemplifies the best part of DEP with her proactive approach to communicating with all sectors of the public that engages people into partnerships to respect and take care of their environment," said DEP Commissioner Bob Shinn, who presented the award with Sheehan.

For the past nine years, Pflugh has worked on contaminated fish issues in the Newark Bay Complex. Her community-based outreach and education program on fish consumption advisories received the Urban Hometown River Award from the leading river conservation group, American Rivers. She also has conducted research and has published a number of articles on urban anglers, the perception of risk from eating contaminated fish and crab, consumption patterns, as well as the perception of risk in the Latino community.

Pflugh also created the award-winning Harbor Estuary Urban Fishing Program to teach elementary students about water quality monitoring, storm drain stenciling, watersheds and other water-related issues. The Hackensack Riverkeeper, which is a principle participant in the program, has collaborated for years with Pflugh on public education projects, such as signage, brochures, a video, and a statistical survey of fishing in Newark Bay.

Pflugh began her career with the DEP in the Division of Science, Research and Technology. She has a Bachelors degree in Environmental Communication from Cook College, Rutgers University and a Masters in Agricultural Journalism from the University of Wisconsin-Madison.



***Captain Bill Sheehan (left) and DEP Commissioner Bob Shinn (right) present the "Friend of the Hackensack River" Award to Kerry Kirk Pflugh (center).***



## THIRD ANNUAL RIVER FESTIVAL FOR THE UPPER DELAWARE

by Jill Peach and Grace Messinger

The Third Annual River Festival in the Upper Delaware Watershed Management area was held on Sunday, October 7 at the Hackettstown Community Park located in Warren County. The festival was held in an effort to increase public awareness of New Jersey's Upper Delaware Watershed Management Project as well as to highlight the various environmental organizations that exist within this region.

The event drew in approximately over 1,000 people throughout the day. This year's River Festival was supported by many organizations including: the New Jersey Department of Environmental Protection Division of Watershed Management; North Jersey Resource Conservation and Development Council; Covanta Energy and the Musconetcong Watershed Association.

Some of the activities during the day included pumpkin painting, face painting, a hay maze for the children, sand art, food vendors and music by *the Kate and Paul Band*. The Warren County Shade Tree Commission gave away free tree seedlings, while Central Jersey Trout Unlimited demonstrated fly-casting. The Enviroscope Watershed Model was presented by AmeriCorps Watershed Ambassadors. The South Branch Watershed Association and the Warren County Health Department presented the groundwater model. The Musconetcong Watershed Association led canoe rides along the Musconetcong River. And the Pohatcong Creek Watershed Association demonstrated biological assessment techniques.



### ***Empowering High School Students Through Environmental Leadership***

For the last four years, the NJ Watershed Stewards Program has been a unique and rewarding program that has given more than 400 students an opportunity to participate in stewardship projects in their watershed community. The program centers around a weekend leadership institute held every March where three to six students, *the Watershed Stewards Team*, from a high school come to learn leadership skills, explore watershed issues, work on team building techniques and meet other students from around the state. Then, each team is required to coordinate a stewardship project during May or June by recruiting volunteers, making a presentation to their school board or student/civic groups, securing the necessary tools, resources and food for the work day, and getting publicity for their project. Each year the stewardship projects are set up differently based on funding. Last year, the nine Watershed Stewards Teams (more than 100 students) planted 96 trees at three locations: Liberty State Park, Ramsey Golf Course and NJ Audubon Society's Plainsboro Preserve. Funding was provided through the NJ Division of Parks and Forestry's Community Stewardship Grants.



*"My experience as part of my Watershed Stewards Team taught me how to be a community leader. One of the first lessons I remember is to always keep your volunteers happy and your project will be a success. More rewarding than even the night hike and star gazing or the s'mores we ate around a bonfire, or the giant seesaw we played on to balance our team, was seeing the hard work and dedication of all the stewards as we planted 36 trees in one day at Liberty State Park." - Emma Solberg, McNair Academy, Jersey City*

#### ***2002 Watershed Stewards Program - Leadership Institute - March 8 - 10, 2002 at Camp Ockanickon in Medford***

Open to High School Students only. Cost is only \$30 per student with a maximum of 5 students per school. Food included. Teachers receive a stipend and 12 professional development credits for their participation.

Registration deadline is **February 27th**. For more information, to register or to assist please call Colleen Gould, NJ Watershed Stewards at 732-292-4672 or email [cgould@superlink.net](mailto:cgould@superlink.net)

# NEW JERSEY SOURCE WATER ASSESSMENT PROGRAM

The 1974 Federal Safe Drinking Water Act and the 1977 New Jersey Safe Drinking Water Act were passed to ensure drinking water is safe for human consumption. The Federal Safe Drinking Water Act established regulations for contaminant concentration levels and monitoring of contaminants in drinking water to ensure the public is receiving safe drinking water. The New Jersey regulations, compared to the Federal regulations, set more stringent Maximum Contaminant Levels (MCLs) for 13 contaminants and establish 5 additional contaminant MCLs.

In 1996 Amendments were made to the Federal Safe Drinking Water Act to place a strong emphasis on public awareness and the information provided to the public concerning their quality of drinking water. As part of the 1996 Amendments, all states are required to establish a Source Water Assessment Program (SWAP) for public water systems. As part of the SWAP, states must assess the susceptibility of public water systems to contamination, based on its location, type and amount of contaminants, and use of contaminants.

The U.S. Environmental Protection Agency (USEPA) approved New Jersey's SWAP Plan in November 1999. A copy of the plan is available at [www.state.nj.us/dep/watersupply/swap.htm](http://www.state.nj.us/dep/watersupply/swap.htm) or by contacting the Bureau of Safe Drinking Water at (609) 292-5550.

The NJDEP anticipates using the information obtained from the SWAP as follows:

1

**Public education and participation in the protection of their drinking water.** The information gained from the Source Water Assessments will make the public aware of the potential contaminants that could impact the water's quality. This information will encourage protection of the water sources, provide information for watershed assessment and planning, direct additional water studies, and improve land use planning. As part of the SWAP, the State will develop a Source Water Assessment Summary for each water system that will be available to the public.

2

**Establish a flexible monitoring schedule for public water systems.** The Source Water Assessments will assist the State in determining the necessary monitoring requirements for individual public water systems. Currently, the USEPA and the NJDEP have mandatory monitoring schedules for public water systems. For a complete list of drinking water standards for the regulated contaminants please refer to the SWAP Plan. The SWAP will allow States to adjust monitoring of public water systems based on their individual assessments.

New Jersey's SWAP incorporates the following four fundamental steps to determine each public water system's susceptibility to contamination:

1

**Delineate the Source Water Assessment area for each groundwater and surface water source of public drinking water.**

The Source Water Assessment area is dependent on the source of water, groundwater or surface water. The Source Water Assessment area for a groundwater source (well) is defined as the area surrounding the well from which water flows to the well within a twelve-year time period. To determine the Source Water Assessment area for public water system wells, the NJDEP is performing delineations using two methods. Public community water systems will be delineated using the Combined Model/Calculated Fixed Radius Method and the noncommunity water systems will be delineated using the Calculated Fixed Radius Method. A complete description of these methods and their procedures are explained in the "Guidelines for Delineation of Well Head Protection Areas in New Jersey" available at [www.state.nj.us/dep/dsr/whpadel.pdf](http://www.state.nj.us/dep/dsr/whpadel.pdf).

The NJDEP has completed Source Water Assessment area delineations for the community water system wells. The NJDEP is anticipating the Source Water Assessment area delineations for all community water system wells will be available in Fall 2001. In order to perform the Source Water Assessment area delineations for the noncommunity water system wells, the wells first must be Geographic Positioning System (GPS) located. The NJDEP with the assistance of county health agencies and the New Jersey Water Association have GPS located approximately 50 percent of the noncommunity water system wells. Once the wells are GPS located, the NJDEP will begin delineating the noncommunity water system wells using the Calculated Fixed Radius Method. NJDEP expects the delineations will be complete in 2002.

The Source Water Assessment area for a surface water intake is the area upstream of the intake, including the headwaters and tributaries. The Source Water Assessment area will be delineated using U.S. Geological Survey's hydrologic unit code (HUC) 14. Thirteen of the 62 surface water assessment areas have been delineated and the NJDEP anticipates the remaining surface water intakes will be delineated by July 2002.

## 2

**Inventory the potential contamination sources within the Source Water Assessment area.** Included in the New Jersey SWAP Plan is a list of types of potential contaminant sources. The contaminant source can be either a nonpoint or point source. Nonpoint sources include roadway runoff, agriculture, recreational areas, and storage facilities. Contaminated sites, leaking underground storage tanks, and New Jersey Pollution Discharge Elimination System Permitted Sites (NJPDDES) are examples of point sources. The NJDEP is in the process of gathering data for the inventories and identifying the contaminant sources within the delineated areas that are complete.

## 3

**Determine the water source's susceptibility to regulated contaminants.** The presence of a contaminant and its intensity of use within its Source Water Assessment area determine the susceptibility of a water source. The NJDEP has contracted with the U.S. Geological Survey to develop a susceptibility model for each of eight different contaminant categories: pathogens, nutrients, volatile organic compounds, synthetic organic compounds, inorganics, radionuclides, pesticides, and disinfectant precursors. In addition to developing the susceptibility model, the U.S. Geological Survey has agreed to fund a portion of the SWAP.

The susceptibility models will be developed to consider the sensitivity of the intake or wells (such as confined vs. unconfined for wells) and the amount and type of potential contaminant sources within its Source Water Assessment area. These models will be developed using a selected set of surface water monitoring stations and public water system wells throughout New Jersey. All models will be validated, and then applied to the remaining public water systems.

## 4

**Incorporate public participation and education.** As a result of the 1996 Amendments strong emphasis on public outreach, the NJDEP developed a Source Water Assessment Advisory Committee to help develop the SWAP Plan. Currently, the Advisory Committee consists of approximately 50 members who come from various interests including water purveyors, municipalities, health departments, and environmental organizations. The committee is responsible for assisting the NJDEP with addressing concerns and questions that arise during the SWAP. The Source Water Assessment Advisory Committee will also ensure the information gained from the Source Water Assessments is presented to the public in an understandable form.

The NJDEP is keeping the public informed through a series of newsletters, fact sheets, and other educational materials. The New Jersey Source Water Assessment Newsletter is available on the internet at [www.state.nj.us/dep/watersupply/latestswapnews.doc](http://www.state.nj.us/dep/watersupply/latestswapnews.doc) or by contacting Kristin Zams at the Bureau of Safe Drinking Water at (609) 292-5550.

In accordance with the U.S. Environmental Protection Agency's approval, the New Jersey Department of Environmental Protection will be finished with the Source Water Assessments by May 2003.

**For more information, please contact Kristin Zams of the Bureau of Safe Drinking Water at (609) 292-5550 or [kzams@dep.state.nj.us](mailto:kzams@dep.state.nj.us).**





## CLARK'S POND NATURE PRESERVE RESTORATION UNDERWAY



The Township of Bloomfield was awarded a Federal Section 319(h) nonpoint source pollution grant through the NJDEP Division of Watershed Management's Northeast Bureau. The grant will help with the ecological restoration of the nature preserve and will include implementation of Best Management Practices for Canada goose control to reduce fecal coliform levels in the Clark's Pond and the Third River.

The Clark's Pond Nature Preserve is a green oasis located in Bloomfield in the highly urbanized Watershed Management Area 4. The Township of Bloomfield officially declared the site "Clark's Pond Nature Preserve" last year. The preserve consists of a 7-acre pond and 10 acres of woodland. The Preserve is a much-needed refuge to observe wildlife, take a walk or fish.

The Preserve was made possible through the efforts of "The Friends of Clark's Pond and the Third River." The Friends organization has been working on restoring the preserve with the US Fish and Wildlife Service, NJDEP's Division of Watershed Management and many other organizations. The Friends of Clark's Pond and the Third River have diligently worked on the protection and restoration of this urban refuge. The Friends have many events throughout the year, for more information please call (973) 338-5856.